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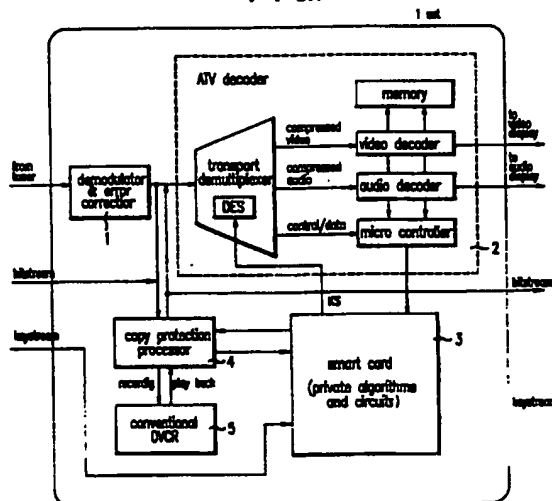
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(54) **Illegal view and copy protection method in digital video system and controlling method thereof**

(57) Illegal view and copy protection method in a digital video system for preventing an illegal user from viewing the digital video system and copying therefrom, by setting a descrambling method which decrypts split keystreams adopting a smart card, including a determination step for determining received data of having been scrambled; a reproduction step, if the received data was determined to be scrambled data in the determination step, splitting the scrambled data into a bitstream and a keystream for decrypting the split keystream for reading in key information, and descrambling the split bitstream according to the read in key information for displaying the bitstream on a display; a recording step for, if the received data was determined to be scrambled data in the determination step, recording the scrambled data on a recording medium either as scrambled data of a bitstream and a keystream according to a recording or copying mode, or after splitting the scrambled data into a bitstream and a keystream, encrypting the split keystream, and mixing the encrypted keystream with the bitstream; and a transporting step, if the received data was determined to be scrambled data in the determination step, splitting the scrambled data into a bitstream and a keystream for transporting the split keystream either after decrypting the split keystream with respect to key information from recording side according to a PPC mode or a back-up copy mode, or after decrypting the split keystream two times with respect to key information of its own and key information from recording side; thereby the reproduction step, the recording step and the transporting step can be performed simultaneously or selectively.

FIG. 7





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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 8493

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	EP 0 519 320 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) * column 5, line 56 - column 7, line 27; examples 2-4 *	1,9,12, 15,16,24	H04N5/913
A	EP 0 588 535 A (PIONEER ELECTRONIC CORPORATION) * column 2, line 50 - column 11, line 29; figures 1,5,6 *	1,9,12, 15,16, 19,23, 24,31	
A	EP 0 267 039 A (SATELLITE TECHNOLOGY SERVICES, INC.) * column 3, line 20 - column 4, line 38; figure 1 *	1,2,9, 12,15, 16,24	
P,A	US 5 455 860 A (HIRASHMA) * column 5, line 48 - column 6, line 11; figure 1 *	1,9,12, 15,16,24	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 9 April 1997	Examiner Verleye, J
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			